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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,403

12/21/2006

Anthony Jarvis

APLE 2 00016

8391

27885

7590

07/07/2009

Fay Sharpe LLP

1228 Euclid Avenue, 5th Floor

The Halle Building

Cleveland, OH 44115

EXAMINER

ZEMEL, IRINA SOPHIA

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

07/07/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/599,403	<b>Applicant(s)</b> JARVIS ET AL.	
	<b>Examiner</b> Irina S. Zemel	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 49-62 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 49-62 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9-28-2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 51 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

There is no sufficient antecedent basis for the clause “the inorganic material” claimed in claim 51.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 49-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP apent 6-70165 (corresponding to JP Appl. 61-278558, translation provided) to Toray Industries, Inc., (hereinafter “Toray”) in combination with US PGPub 2002/0009564 to Hall et al., (hereinafter “Hall ‘564”).

Toray discloses a compositions comprising polyethylene terephthalate (PET) and titanium nitride (TiN) . See the entire document. Toray discloses the particle size of TiN is preferably less than 5 um (5000 nm) and further expressly discloses particles with average particle size of 0.1 um (example 2), which is 100

Art Unit: 1796

nm, corresponding to the claimed particle size. The maximum particle size in the same illustrative example is disclosed as 0.8 micron ( $\mu\text{m}$ ) fully corresponding to the limitations of claims 52,53. The reference does not expressly disclose that the maximum particle size of 95 % being less than 0.5  $\mu\text{m}$ , however, such dimensions (if not inherent in the particles of example 2) are closely correspond to the disclosed sizes and would have been further obvious from the disclosure of average size of 100  $\mu\text{m}$  and maximum size of 800  $\mu\text{m}$ , and also from overall disclosure of the references that discloses preference to small particle size in the absence of unexpected results that can be attributed to such particle size distribution. The reference further expressly discloses that TiN can be added in the amounts as low as 0.05 % by weight (or 500 ppm) which fully correspond to the claimed amount of TiN in the composition or with respect to PET polymer. The reference expressly discloses various advantages of the compositions, including improved slip properties and anti-blocking properties.

The reference disclosed films, yarns and generically, other molded articles, but does not expressly disclose bottles, or container (or pre-forms), i.e., the reference exemplifies final products of different shapes.

However, it is well known in the art that same PET based compositions are used for production of wide variety of end products, such as films or bottle/container pre-forms (and containers made from such pre-forms), as evident from, for example, background section of Hall '564, which discloses such end uses for PET compositions. Hall further discloses that "improved slip" characteristics are desirable for forming bottle preforms, and this is exactly the

Art Unit: 1796

characteristic which is disclosed as improved in the invention of Toray '558.

Therefore, it would have been obvious for one of ordinary skill in the art to use PET based compositions of Toray for making containers/performs since it is known in the art to use same PET based compositions for production of films and bottles, and since the composition of Toray exhibits characteristics desirable for compositions used for bottle forming.

Insofar as the claimed process, once the PET disclosed in Toray are chosen for forming bottle/container pre-forms (as an obvious choice of an ordinary artisan as discussed above), the steps claimed in the instant claims 61-62 would have been obvious as the most common steps in producing PET based bottles. See, again, for example, disclosure of Hall expressly teaching that the method steps as claimed in the instant invention are the most common steps for producing PET bottles. The properties of the perform is inherently corresponds to the claimed properties as made from identical materials

The applicants attention is drawn to claims of US Patent 7368523 to Xia, et al., (especially claim 2) for potential interference of the claimed subject matter of the instant application and the subject matter patented in the referenced patent. The referenced patent discloses the subject matter identical to the subject matter claims in the instant application. No art rejection has been issued based on the disclosure of Xia '523 pates since the effective filing date of 11-12-04 of the Xia patent (although is earlier than the effective filing date of 3-30-05 of the instant application), is later than the foreign (UK) priority date of 3-30-04)

Art Unit: 1796

claimed in the instant application and a certified copy of the UK priority document (which is in English) is filed on the record of the instant application.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/  
Primary Examiner, Art Unit 1796

Irina S. Zemel  
Primary Examiner  
Art Unit 1796

ISZ

